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10/623,133

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Viktor Varsa

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EXAMINER

SMITH, MARCUS

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/623,133	Applicant(s) VARSA ET AL.	
	Examiner MARCUS R. SMITH	Art Unit 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-2, 4, 7-8-11, 13, 15-17, 21-25, 27, 29, 31, 33-36, and 37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 4, 7-8-11, 13, 22-25, 27, 29, 31, 33-36, and 37 is/are rejected.
- 7) ☒ Claim(s) 5, 15-17, and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on 3/12/08 under 37 CFR 1.131 is sufficient to overcome the Harumoto et al. reference.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 4, 7-8-11, 13, 22-25, 27, 29, 31, 33-36, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al. (US 2003/0198184) in view of Deshpande (US 7,047,308).

with regard to claims 1, 27, and 34, Huang teaches (see figure 1):

A method for receiving a packet stream at a client, comprising:

receiving from a server (RTCP sender report) so that the client is able to play out the packet stream without buffer violation when the packet stream is transmitted over a constant delay, reliable transmission channel (page 3, paragraph 19 and pages 5-6, paragraph 58: The sender);

estimating parameters of a jitter buffer based on packet stream transfer delay variation (page 3, paragraph 22, the examiner views the network buffer as the jitter buffer in the client); and

transmitting to the server (sending the RTCP receivers report with feedback information) information indicative (The feedback information contains channel throughput, buffer occupation, and packet loss status) of an aggregate of the pre-decoder buffering parameters and the jitter buffer (page 3, paragraph 19 and page 5, paragraph 34).

Huang discloses all of the subject matter as described above except for client receiving from the server predecoder buffering parameters. Huang does not disclose what is being sent in sender's report.

However the Deshpande teaches a client server system that sends the buffering capacities from the server to client in step 901 before the client sends the its buffering parameters back to server (see figure 9, column 11, lines 25-30) in order to reduce jitter and packet loss in the client (column 8, lines 15-23).

Therefore it would have been obvious to one having ordinary skill in the art at the time invention was made to have server send the buffering capacities to clients as taught by Deshpande in the sender's report of Huang in order to reduce jitter and packet loss in the client.

with regard to claim 2, Huang teaches

the method according to claim 1, wherein the pre-decoder buffering parameters received are chosen based on variable bit-rate characteristics of the transmitted packet stream and the buffering applied by the server (page 3, paragraph 23, lines 15-22).

with regard to claims 4 and 20, Huang teaches

A method according to claim 1, wherein the information indicative of the aggregate buffering parameters is transmitted to the server at beginning of a new streaming session (page 3, paragraph 22, lines 15-20).

with regard to claims 7 and 30, Huang teaches

A method according to claim 1, wherein the streaming server is adapted to optionally consider the information indicative of the client's chosen pre-decoder buffering parameters in rate control and/or rate shaping (page 3, paragraph 23).

with regard to claims 8, 22, 31, and 35, Huang teaches:

A method according to claim 1, wherein the information indicative of the client's chosen pre-decoder buffering parameters includes at least **one** of the following:

information regarding a size of the client's pre-decoder buffer (page 3, paragraph 19, lines 6-10, buffer occupation can be viewed as size),

information regarding a pre-decoder buffering period; and

information regarding a post-decoder buffering time.

with regard to claims 9 and 23, Deshpande teaches:

A method according to claim 1, wherein the streaming client is adapted to provide the information indicative of the client's chosen pre-decoder buffering parameters to the streaming server in a Real-Time Streaming Protocol (RTSP) an RTSP OPTIONS request message (Deshpande teaches communicating between the client and server using RSTP message. See column 6. The examiner views those RSTP messages taught in column 6, can be viewed an Options request message.).

with regard to claims 10 and 24, Deshpande teaches:

A method according to claim 9, wherein the information indicative of the client's chosen pre-decoder buffering parameters is provided to the streaming server in an RTSP PLAY request message (Deshpande teaches communicating between the client and server using RSTP message. See column 6. The examiner views those RSTP messages taught in column 6, can be viewed a PLAY request message.).

with regard to claims 11 and 25, Deshpande teaches:

A method according to claim 9, wherein the information indicative of the client's chosen pre-decoder buffering parameters is provided to the streaming server in an RTSP PING request message (Deshpande teaches communicating between the client and server using RSTP message. See column 6. The examiner views those RSTP messages taught in column 6, can be viewed a PING request message.).

with regard to claim 13, Huang teaches

A streaming client (see figure 1) , comprising:

a pre-decoder buffer for storing a packet stream from a server (network buffer, page 3, paragraph 20, lines 5-10);

a media decoder for decoding the packet stream (Since the server includes source encoding (paragraph 23, last sentence), then the client has decoder to decoding the stream.);

a buffer controller for estimating parameters of a jitter buffer based on packet stream transfer delay variation (page 3, paragraph 23, lines 15-22, which explains the client has a jitter buffer and server determined the byte target based on the depth of the

jitter buffer. Thus the client must have controller to estimated jitter buffer's depth before sending the feedback report); and

a signaling engine for receiving from the server to ensure that the client is able to play out the packet stream without buffer violation when the packet stream is transmitted over a constant delay, reliable transmission channel, (page 3, paragraph 19 and pages 5-6, paragraph 58: The sender report) and for providing information indicative of an aggregate of the pre-decoder buffering parameters and the jitter buffer to the server (page 3, paragraph 19 and page 5, paragraph 34, sending the RTCP receivers report with feedback information).

Huang discloses all of the subject matter as described above except for client receiving from the server predecoder buffering parameters. Huang does not disclose what is being sent in sender's report.

However the Deshpande teaches a client server system that sends the buffering capacities from the server to client in step 901 before the client sends the its buffering parameters back to server (see figure 9, column 11, lines 25-30) in order to reduce jitter and packet loss in the client (column 8, lines 15-23).

Therefore it would have been obvious to one having ordinary skill in the art at the time invention was made to have server send the buffering capacities to clients as taught by Deshpande in the sender's report of Huang in order to reduce jitter and packet loss in the client.

with regard to claims 29 and 36, Huang teaches

a rate controller adapted to adjust a rate at which media data is transmitted from the server in accordance with the aggregate buffering parameters (page 3, paragraph 24).

with regard to claim 33 and 37, Huang teaches

wherein the information indicative of the aggregate buffering parameters is received during a streaming session; and the rate controller is adapted to re-adjust the rate at which media data is transmitted from the server in accordance with the changed aggregate buffering parameters (page 3, paragraph 24).

Allowable Subject Matter

4. Claims 5, 15-17, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments with respect to claims 1-2, 4, 7-8-11, 13, 22-25, 27, 29, 31, 33-36, and 37 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARCUS R. SMITH whose telephone number is (571)270-1096. The examiner can normally be reached on Mon-Thurs: 7:30 am - 5:00 p.m. and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MRS 6/09/08

/CHAU T. NGUYEN/
Supervisory Patent Examiner, Art Unit 2619